

IN THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claims 1-18 (Cancelled).

Claim 19 (Original). An image forming apparatus comprising: an image carrier configured to form a latent image thereon; a developer carrier configured to deposit thereon a high viscosity, high density developing carrier consisting of a carrier liquid and toner dispersed in said carrier liquid, said developing liquid developing the latent image formed on said image carrier; electric field forming means for forming an electric field between said image carrier and said developer carrier; wherein said electric field forming means forms a background electric field between a background of said image carrier where the latent image is absent and said developer carrier such that said background electric field causes part of residual toner, which is left on said background after development, to remain on said background and attracts the other part of said residual toner toward said developer carrier to thereby remove said other part from said background; and a toner movement ratio, which is a ratio of the toner moved from a region of said developer carrier carrying the developing liquid for developing the background to said background to the toner present in said region before development is selected such that the residual toner attracted toward said developer carrier does not cohere.

Claim 20 (Original). The apparatus as claimed in claim 19, wherein the toner movement ratio comprises a weight ratio of moved toner that is a ratio of a weight of the

toner deposited on the background of said image carrier after development to a weight of the toner deposited on said region of said developer carrier before development.

Claim 21 (Original). The apparatus as claimed in claim 20, wherein said toner movement ratio or said weight ratio of moved toner comprises a background development ratio that is a ratio of image density on the background of said image carrier after development to image density in said region of said developer carrier before development.

Claim 22 (Original). The apparatus as claimed in claim 21, wherein said background development ratio is 10% or above.

Claim 23 (Original). The apparatus as claimed in claim 22, wherein the developing time for the background is controlled to thereby control said background development ratio.

Claim 24 (Original). The apparatus as claimed in claim 23, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 25 (Original). The apparatus as claimed in claim 24, further comprising: a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming means for forming a removal electric field between the background of said image carrier and said removing member.

Claim 26 (Original). The apparatus as claimed in claim 25, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm² is 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 27 (Original). The apparatus as claimed in claim 19, wherein said toner movement ratio or said weight ratio of moved toner comprises a background development ratio that is a ratio of image density on the background of said image carrier after development to image density in said region of said developer carrier before development.

Claim 28 (Original). The apparatus as claimed in claim 27, wherein said background development ratio is 10% or above.

Claim 29 (Original). The apparatus as claimed in claim 28, wherein the developing time for the background is controlled to thereby control said background development ratio.

Claim 30 (Original). The apparatus as claimed in claim 29, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 31 (Original). The apparatus as claimed in claim 30, further comprising: a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming means for forming a removal electric field between the background of said image carrier and said removing member.

Claim 32 (Original). The apparatus as claimed in claim 31, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm.^{sup.3} is 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 33 (Original). The apparatus as claimed in claim 19, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 34 (Original). The apparatus as claimed in claim 33, further comprising: a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming means for forming a removal electric field between the background of said image carrier and said removing member.

Claim 35 (Original). The apparatus as claimed in claim 34, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm.^{sup.2} is 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 36 (Original). The apparatus as claimed in claim 19, further comprising: a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming

means for forming a removal electric field between the background of said image carrier and said removing member.

Claim 37 (Original). The apparatus as claimed in claim 36, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm.² is 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 38 (Original). The apparatus as claimed in claim 19, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm.² 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 39 (Original). An image forming apparatus comprising: an image carrier configured to form a latent image thereon; a developer carrier configured to deposit thereon a high viscosity, high density developing carrier consisting of a carrier liquid and toner dispersed in said carrier liquid, said developing liquid developing the latent image formed on said image carrier; electric field forming means for forming an electric field between said image carrier and said developer carrier; wherein said electric field forming means forms a background electric field between a background of said image carrier where the latent image is absent and said developer carrier such that said background electric field causes part of residual toner, which is left on said background after development, to remain on said background and attracts the other part of said residual toner toward said developer carrier to thereby remove said other part from said background; and the background electric field has

an absolute value equal to or smaller than a value that prevents the residual toner attracted toward said developer carrier from cohering.

Claim 40 (Original). The apparatus as claimed in claim 39, wherein the background electric field is 3.5×10^7 V/m or below in absolute value.

Claim 41 (Original). The apparatus as claimed in claim 40, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 42 (Original). The apparatus as claimed in claim 41, further comprising; a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming means for forming a removal electric field between the background of said image carrier and said removing member.

Claim 43 (Original). The apparatus as claimed in claim 42, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm² is 0.1 .mu.g or above, but 2 .mu.g or below.

Claim 44 (Original). An image forming apparatus comprising: a an image carrier configured to form a latent image thereon; a developer carrier configured to deposit thereon a high viscosity, high density developing carrier consisting of a carrier liquid and toner dispersed in said carrier liquid, said developing liquid developing the latent image formed on

said image carrier; a removing member for attracting residual toner left on the background of said image carrier after development to thereby remove said residual toner; and removal electric field forming means for forming a removal electric field between the background of said image carrier and said removing member; wherein the background electric field has an absolute value equal to or smaller than a value that prevents the residual toner attracted toward said developer carrier from cohering.

Claim 45 (Original). The apparatus as claimed in claim 44, wherein the background electric field is $5.0 \times 10.7 \text{ V/m}$ or below in absolute value.

Claim 46 (Original). The apparatus as claimed in claim 45, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 47 (Original). The apparatus as claimed in claim 46, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm^2 is $0.1 \mu\text{g}$ or above, but $2 \mu\text{g}$ or below.

Claim 48 (Original). The apparatus as claimed in claim 44, further comprising a residual toner recycling mechanism configured to allow residual toner left on said developer carrier after development to be reused for development.

Claim 49 (Original). The apparatus as claimed in claim 48, wherein the toner contains a pigment, and a thickness of the developing liquid to be coated on said developer carrier is

ATTY DOCKET NO. 250991US-2DIV

INVENTOR: Tsutomu SASKI, et al.

PRELIMINARY AMENDMENT

selected such that a pigment content of said toner deposited on a surface of said developer carrier for 1 cm.sup.2 is 0.1 .mu.g or above, but 2 .mu.g or below.

Claims 50-64 (Cancelled).